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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/645,709	08/24/2000	David S. Breed	ATI-165	3330

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BRIAN ROFFE, ESQ
11 SUNRISE PLAZA, SUITE 303
VALLEY STREAM, NY 11580-6170

EXAMINER

CHANG, KENT WU

ART UNIT PAPER NUMBER

2673

DATE MAILED: 07/09/2004

16

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/645,709

Applicant(s)

BREED, DAVID S.

Examiner

Kent Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18, 21, 22, 27-30, 51, 54-66, 69, 70 and 89-113 is/are pending in the application.
- 4a) Of the above claim(s) 69 and 70 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-18, 21, 22, 27-30, 51, 54-66 and 89-113 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3-5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. This application contains claims 69-70 drawn to an invention nonelected with traverse in the reply filed on 3/3/04. A complete reply to the final rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Applicant's arguments to the restriction are moot since claims 69-70 are directed to a system for adjusting a display based on the difference between the sensitive direction of a microphone and a user's mouth, which is patentably distinct from adjusting a display based on a user's input using a touch pad.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 10/30/00, 11/20/00, and 12/7/00 (Paper No. 3-5) are in compliance with the provisions of 37 CFR 1.97 and all of the references listed in the IDS have been considered by the examiner.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 89-92, 95-107 are rejected under 35 U.S.C. 103(a) as being unpatentable over Palalau et al (US Patent No. 6,373,472).

Consider claims 89-92, 98, 99, 104, 105, 106, 107. Palalau teaches a vehicle display system comprising forming means for forming a head up display image (the projector for projecting text and graphics into the windshield of a vehicle), a touch screen (22), interacting means (touch switches 28, 30) located on the steering wheel and the top of the airbag area, coupled to the projecting means for interacting with the display system, wherein the touch switches (or touched location as recited in claims 98, 99) are correlated with the image based on the function group being selected (column 3 line 10 to column 5 line 23). Furthermore, the system of Palalau is used to display all types of information including audio, climate, navigation, cruise, and fuel level indicating panel (therefore reads on claim 91, see Figures 3-7). Although Palalau does not specify the type of the touch switches, it would have been obvious for one of ordinary skill in the art at the time of the invention to use any type of well known switches including touch pad switches since they are all equally function well in generating a key input signal.

Consider claim 96. The switches in the device of Palalau are located on the cover of a conventional airbag module (see Fig.1).

Consider claim 97. It would have been obvious for one of ordinary skill in the art at the time of the invention to construct the touch pad so that it

would break upon deployment of the airbag otherwise it would prevent the deployment of the airbag.

Consider claims 100-103. It would have been obvious for one of ordinary skill in the art at the time of the invention to use a detachable touch pad with wireless communication for inputting command so as to enable the user to store and use the touch pad in any location within the car.

5. Claim 93 is rejected under 35 U.S.C. 103(a) as being unpatentable over Palalau et al (US Patent No. 6,373,472) in view of Schiffman (US Patent No. 5,061,996).

Palalau teaches a vehicle display system comprising a projector for projecting text and graphics into the windshield of a vehicle, a touch screen (22), interacting means (touch switches 28, 30) coupled to the projecting means for interacting with the display system (column 3 line 10 to column 5 line 23). Palalau does not show two head up displays.

However, Schiffman teaches a HUD system for a vehicle comprising a display for the driver and a display for the front passenger (column 5 lines 20-42 and Fig.7). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to use a display for the driver and a display for the front passenger as taught by Schiffman in the device of Palalau so as to enable both of the driver and passenger to view the images.

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6. Claims 94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Palalau et al (US Patent No. 6,373,472) in view of Berstis et al (US Patent No. 6,505,165).

Palalau teaches a vehicle display system comprising a projector for projecting text and graphics into the windshield of a vehicle, a touch screen (22), interacting means (touch switches 28, 30) coupled to the projecting means for interacting with the display system (column 3 line 10 to column 5 line 23). Palalau does not show using voice activation for command inputting.

However, Berstis teaches a HUD system for a vehicle using voice activation for command inputting (column 5 lines 47-67). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to use voice activation for command inputting as taught by Berstis in the device of Palalau so as to enable the driver inputting command without having to divert the driver's attention away from the road as suggested by Berstis.

7. Claims 108-111 are rejected under 35 U.S.C. 103(a) as being unpatentable over Palalau et al (US Patent No. 6,373,472) in view of Matsumoto (US Patent No. 5,734,357).

Palalau teaches a vehicle display system comprising a projector having a combiner for projecting text and graphics into the windshield of a vehicle, a touch screen (22), interacting means (touch switches 28, 30) coupled to the projecting means for interacting with the display system (column 3 line

10 to column 5 line 23). Palalau does not show adjusting the display position according to the position of the driver's eyes.

However, Matsumoto teaches a HUD system for a vehicle comprising a detector for detecting the position of the driver's eyes so as to adjust the display position (column 3 line 61 to column 4 line 67). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to use a detector for detecting the position of the driver's eyes as taught by Matsumoto in the device of palalau so as to adjust the display position for easy viewing.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 8-18, 21, 71, 112, 113 are rejected under 35 U.S.C. 103(a) as being unpatentable over Palalau et al (US Patent No. 6,373,472) in view of Matsui (US Patent No. 6,215,479).

Palalau teaches a vehicle display system comprising forming means for forming a head up display image (the projector for projecting text and graphics into the windshield of a vehicle), a touch screen (22), interacting means (touch switches 28, 30) located on the steering wheel and the top

of the airbag area, coupled to the projecting means for interacting with the display system, wherein the touch switches (or touched location as recited in claims 98, 99) are correlated with the image based on the function group being selected (column 3 line 10 to column 5 line 23). Furthermore, the system of Palalau is used to display all types of information including audio, climate, navigation, cruise, and fuel level indicating panel (therefore reads on claim 91, see Figures 3-7). Although Palalau does not specify the type of the touch switches, it would have been obvious for one of ordinary skill in the art at the time of the invention to use any type of well known switches including touch pad switches since they are all equally function well in generating a key input signal. Palalau is silent in showing a cursor on the screen correlated to the touched position.

However, Matsui teaches a system having a screen and a touch pad for data inputting, wherein a pointer is displayed on the screen correlated to the touched position so as to allow the user to see the position of data inputting (see column 16 lines 13-20 and Fig.7).

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to show a pointer on the screen correlated to the touched position so as to allow the user to see the position of data inputting as suggested by Matsui.

Consider claims 9-10. It would have been obvious for one of ordinary skill in the art at the time of the invention to construct the touch pad so that it

would break upon deployment of the airbag otherwise it would prevent the deployment of the airbag.

Consider claims 13-16. It would have been obvious for one of ordinary skill in the art at the time of the invention to use a detachable touch pad with wireless communication for inputting command so as to enable the user to store and use the touch pad in any location within the car.

3. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Palalau et al (US Patent No. 6,373,472) and Matsui (US Patent No. 6,215,479) as claim 1 above, and further in view of Schiffman (US Patent No. 5,061,996).

Schiffman further teaches a HUD system for a vehicle comprising a display for the driver and a display for the front passenger (column 5 lines 20-42 and Fig.7). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to use a display for the driver and a display for the front passenger as taught by Schiffman in the device of Palalau as modified so as to enable both of the driver and passenger to view the images.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Palalau et al (US Patent No. 6,373,472) and Matsui (US Patent No. 6,215,479) as claim 1 above, and further in view of Berstis et al (US Patent No. 6,505,165).

Berstis further teaches a HUD system for a vehicle using voice activation for command inputting (column 5 lines 47-67). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to use voice activation for command inputting as taught by Berstis in the

device of Palalau as modified so as to enable the driver inputting command without having to divert the driver's attention away from the road as suggested by Berstis.

5. Claims 22, 27-30, 51 and 54-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Palalau et al (US Patent No. 6,373,472) in view of Matsui (US Patent No. 6,215,479) and Matsumoto (US Patent No. 5,734,357).

Palalau teaches a vehicle display system comprising forming means for forming a head up display image (the projector for projecting text and graphics into the windshield of a vehicle), a touch screen (22), interacting means (touch switches 28, 30) located on the steering wheel and the top of the airbag area, coupled to the projecting means for interacting with the display system, wherein the touch switches (or touched location as recited in claims 98, 99) are correlated with the image based on the function group being selected (column 3 line 10 to column 5 line 23). Furthermore, the system of Palalau is used to display all types of information including audio, climate, navigation, cruise, and fuel level indicating panel (therefore reads on claim 91, see Figures 3-7). Although Palalau does not specify the type of the touch switches, it would have been obvious for one of ordinary skill in the art at the time of the invention to use any type of well known switches including touch pad switches since they are all equally function well in generating a key input signal. Palalau is silent in showing a cursor on the screen correlated to the touched position.

However, Matsui teaches a system having a screen and a touch pad for data inputting, wherein a pointer is displayed on the screen correlated to the touched position so as to allow the user to see the position of data inputting (see column 16 lines 13-20 and Fig.7).

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to show a pointer on the screen correlated to the touched position so as to allow the user to see the position of data inputting as suggested by Matsui.

Palalau as modified does not show adjusting the display position according to the position of the driver's eyes.

However, Matsumoto teaches a HUD system for a vehicle comprising a detector for detecting the position of the driver's eyes so as to adjust the display position (column 3 line 61 to column 4 line 67). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to use a detector for detecting the position of the driver's eyes as taught by Matsumoto in the device of palalau as modified so as to adjust the display position for easy viewing.

Consider claims 58-61. It would have been obvious for one of ordinary skill in the art at the time of the invention to use a detachable touch pad with wireless communication for inputting command so as to enable the user to store and use the touch pad in any location within the car.

Response to Arguments

6. Applicant's arguments with respect to claims 1-6,7-18,21,22,27-30,51,54-66, and 89-113 have been considered but are moot in view of the new ground(s) of rejection.

Applicant mainly argues that the prior art of record does not teach showing a cursor on the screen correlated to the touched position. However, Matsui teaches a system having a screen and a touch pad for data inputting, wherein a pointer is displayed on the screen correlated to the touched position so as to allow the user to see the position of data inputting (see column 16 lines 13-20 and Fig.7).

The remainder of the pertinent topics for argument are present in the appropriate rejections above.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory

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period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

CONTACT INFORMATION

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kent Chang whose telephone number is 703-305-4824. The examiner can normally be reached on Monday to Thursday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached at 703-305-4938.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

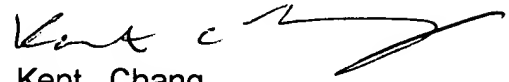
(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121

Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is 305-9700.



Kent Chang
Primary Examiner
Art Unit 2673

Kc

6/17/04